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June 12, 2007

Mr. Howard G. Borgstrom  
Director  
Business Operations Center  
Office of the Chief Financial Officer  
U.S. Department of Energy  
Mailstop CF-60  
Room 4A-221  
1000 Independence Avenue, SW  
Washington, D.C. 20585

Reference: RIN 1901-AB21

Subject: Comments - Notice of Proposed Rulemaking for DOE Loan Guarantee Program

Dear Mr. Borgstrom:

Baard Energy, L.L.C., through its project company Ohio River Clean Fuels, L.L.C., submitted a pre-application to the Loan Guarantee Office in December 2006 in support of a 35,000 barrel per day coal-to-liquids plant.

The Ohio River Clean Fuels (ORCF) plant will gasify coal and biomass to produce synthesis gas, which will supply Fischer-Tropsch (FT) reactors and product upgrading units to produce ready-to-use transportation fuels. These fuels include FT diesel and FT jet fuel as well as FT naphtha for use as chemical feedstock or for further upgrading and blending into gasoline products. The plant will also produce smaller amounts of LPG. The plant will self-produce electricity through waste-heat steam generation and combustion of internally produced synthetic natural gas as well as deliver baseload generation to the grid. The plant will be producing large amounts of hydrogen in the gasification process for self-use in hydrocarbon conditioning as well as for third-party sales. Finally, the plant will employ advanced technologies to condition, capture, and sequester carbon dioxide via enhanced oil recovery in nearby oil reserves and deep-well injection and storage in the abundant neighboring targets located in Eastern Ohio.

The plant will be located in Wellsville, Ohio in the Ohio River Valley. State and local governments are extremely supportive of the project and will participate; no additional federal support is expected beyond the DOE Loan Guarantee. Site control has been established and permitting is progressing. The state and local regulatory agencies have been very attentive and helpful in a cooperative effort at rapidly establishing permits for

the plant. We anticipate submission of permit applications to commence in a systematic fashion beginning this July 2007.

The ORCF project qualifies under the following eligibility requirements:

1. Renewable Energy Systems: The ORCF project will incorporate gasification technologies which will allow up for the use of up to 30% biomass blended with coal and other carbonaceous materials.
2. Advanced Fossil Energy Technology: The project will use advanced gasification technology to produce synthesis gas to supply synthesis gas to the FT reactors and recover steam for the steam turbine generators.
3. Hydrogen: The ORCF project will produce large amounts of hydrogen for self-use and for sale to third parties.
4. Carbon Capture and Sequestration: The ORCF project will include capture and conditioning technologies to supply feedstock for enhanced oil recovery in the State of Ohio and other surrounding areas. The project is also located in an area of the State where there are likely targets for deep-well injection and storage of large amounts of carbon dioxide.
5. Pollution Control Equipment: The project will be including a novel tailgas recovery and conditioning technology that will minimize carbon dioxide emissions, as well as other advanced technologies to minimize water usage and water discharges.

## SECTION A: TECHNOLOGIES

### New and Improved Technology

The DOE proposes to define the term "new or significantly improved technologies" to mean technologies concerned with the production, consumption or transportation of energy and have either only recently been discovered or learned or that involve or constitute meaningful and important improvements in the productivity or value of the technology.

COMMENT: It is suggested that DOE specify primary consideration towards the President's objective of achieving independence from imported energy. With that in mind, Baard agrees with this general definition as noted in the DOE NOPR.

### Limitations on the Number of Projects

The DOE is seeking to find the best definition of 'general use' as a definition for determining when a technology has been deployed and no longer eligible for a loan guarantee.

COMMENT: Baard will limit opinion on this matter to CTL projects.

There are a multitude of plant configurations that can be employed. There are alternative gasification technologies, alternative feedstocks, alternative Fischer-Tropsch technologies, gas clean-up technologies, carbon sequestration technologies, and other

designs which could be configured. In addition, the initial plants could possibly upgrade with innovative technologies in the future and these should not necessarily be denied loan guarantee support. Considering these points, Baard agrees that the optimum choice is contained within the first alternative; loan guarantees shall not be available for technologies that have been installed and used in five or more projects in the United States.

Alternatively, the complexity and anticipated long-term construction schedules for CTL plants, the second contemplated alternative using a five-year window seems very short. Optimization and innovative designs derived from existing plants could conceivably take a period greater than five years. This second alternative could be more beneficial if the five-year window were expanded to ten years, allowing for innovations and improvements or breakthrough technologies to be considered. This would also better match the President's initiative to substantially reduce dependence on foreign oil (many plants).

## **SECTION B: PROJECT COSTS**

### **Definition of Project Costs**

Section II B of the NOPR defines Project Costs as "those that are necessary, reasonable, customary, and directly related to the design, engineering, financing, construction, startup, commissioning, and shake-down of an Eligible Project."

COMMENT: The DOE should specifically include the cost for hedge contracts in the definition of Project Costs. While it is not entirely clear that such a cost would not be considered by DOE, we highly recommend that the DOE specifically include prudently incurred margin payments that are necessary to support project hedging activities within the definition of Project Costs.

The ORCF project managers have explored feedstock and off-take agreements with a variety of coal suppliers and FT jet/diesel/naphtha purchasers. It is believed that managing commodity price risk is highly critical for the long term economic success of a CTL Project.

Based on current forward prices, the ORCF project has a high probability of meeting senior and subordinated debt service while providing adequate returns to equity investors. Declining oil prices and/or increasing coal prices would reduce the probability that a CTL project will be able to meet its debt service obligations. Like all commodities, oil and coal prices are cyclical and volatile. By locking in a long term hedge contract, exposure to volatile commodity changes will be reduced or eliminated, thus increasing the probability that the project will be able to meet future debt service under these conditions. Thus, the probability of a default on the government debt is substantially reduced.

A significant amount of capital will be required to meet the margin obligations that are necessary to lock in long-term hedges with credit-worthy entities. For example, a ten-year, fixed-price off-take agreement will require the ORCF project to post approximately \$8.00 to \$10.00 per barrel of margin with its hedging counterparty (for example, an

investment bank). This equates to approximately \$400 million to \$500 million of initial margin for a 14,000 barrel per day facility. As time passes and deliveries of FT liquids are made, the amount of margin needed to support hedging activities decreases. That margin is then returned to the project and becomes available for repayment of debt. Hedge instruments will provide projects with stable cash flows benefiting senior debt, sub-debt, and equity investors.

#### **SECTION D: PAYMENT OF CREDIT SUBSIDY COST**

The NOPR points out that the Act states that: "No guarantee shall be made unless (1) an appropriation for the cost has been made; or (2) the Secretary has receive from the borrower a payment in full for the cost of the obligation and deposited a payment into the Treasury." As stated, either Congress must appropriate funds to cover the Credit Subsidy Cost or the Borrower must make payment to the DOE of this cost.

**COMMENT:** As per the ORCF pre-application in December 2006, ORCF intends to self-pay the Title XVII credit subsidy or programmatic loan fee. Therefore, we agree with DOE's intention as stated in the NOPR.

ORCF budgeted 10% of the par amount of the guaranteed portion of the issue as a workable amount of credit subsidy under the program. The intent of ORCF is to pay for this credit subsidy out of equity arranged on behalf of the project. It is felt that this self-pay feature is consistent with other governmental guarantee programs and this form of a debt service reserve concept is widely understood among our group of investors, lenders and financial advisors. It is believed this is an important internal hedge against potential future project deficiencies in the overall slate of project financings under Title XVII.

#### **SECTION F: FINANCIAL STRUCTURE**

##### First Lien Priority

DOE interprets the statutory provision of section 1702(g)(2)(B) of 42 U.S.C. 16512(c) that the DOE possesses a first lien priority in the assets of the project and other assets pledged as security and holders of the non-guaranteed portion of a loan or debt instrument will have a subordinate claim to the DOE in the event of default.

**COMMENT:** As ORCF previously acknowledged in the pre-application submission last December, ORCF understands and accepts requirements of DOE's security position under Title XVII. Because of the meaningful financial guarantees in place through the Title XVII program, it is our sense that it would be important for the DOE to secure its risk (whether innovation, technology or credit) and not be party to a pari passu security structure.

##### Maximum Amount of Guarantee

Per the NOPR, DOE is now proposing to guarantee up to 90% of a particular debt instrument or loan obligation for an Eligible Project that can be guaranteed by a Title XVII loan guarantee, so long as DOE's guarantees do not account for more than 80% of

Project Costs. In addition, the DOE are now proposing that the guaranteed and non-guaranteed portion of the debt instrument or loan may be sold on a pro-rata basis.

**COMMENT:** As stated in the ORCF pre-application last December, it was suggested by ORCF that the previously defined maximum guaranteed portion (80% of 80%) was not a particularly viable structure within the capital markets due to the adverse affect such a minimal guarantee would have on the overall effective rate of a project under the Title XVII program.

The proposal indicated by the DOE in the present NOPR suggesting that a project under Title XVII program could have a guarantee set at 80% of project cost and that the DOE guarantee could actually enhance 90% of DOE secured loan or bond structure as long as it was not in excess of the 80% maximum is *extremely encouraging and will be very helpful to secure financing*. It is believed to be a very positive signal and is consistent with the advice of our advisors and potential investors. By having a lender take 10% of the project risk along with 90% of governmental "risk" on projects of this magnitude, an investor/lender still needs to perform a sophisticated and rigorous level of project-specific due-diligence and underwriting before committing to fund a project. The new standards suggested by the NOPR allow for this due-diligence to be executed without tainting the effective rates of the project's indebtedness in the capital markets.

#### Secondary Markets (Stripping)

The non-stripping provisions greatly inhibit the debt service associated with a project of this magnitude, especially in the context of an 80% of 80% or even a true 80% DOE guarantee on a project. In light of the changes to the Maximum Amount of the Loan Guarantee indicated in this NOPR, the non stripping portion of the project when at a 10% level on a loan or bond instrument is an acceptable level of "project risk" in the market on a subordinated basis. ORCF's financial advisors and anticipated lenders have stated that this level of subordination on the overall debt structure can be executed in the capital markets in an efficient manner. ORCF and its advisors applaud DOE's recognition of the importance of the maximum guarantee amount. This seems to strike a balance of DOE's intention to have investors carry material project risk while addressing investor concerns for mitigating the risk of the subordinated portion of the associated debt structure. ORCF, its advisors, and potential investors fully believe that eliminating the non-stripping clause is still the most effective way to enter the capital markets. However, ORCF is sympathetic to DOE's need to fully engage the partners in the pending Title XVII program to understand the technological and credit-related risks of each of the project sponsors. It is believed that modifying the maximum guarantee standard also opens the possibility of more lenders and buyers to participate, which will drive the ultimate rates on the indebtedness even lower than what was previously described in the first round of the pre-application submission.

Financial Commitment of Project Sponsors

DOE is asking for comment on the merits of adopting a minimum equity percentage requirement for projects.

**COMMENT:** As discussed in the ORCF pre-application submission last December, ORCF stated that it will have a 10% equity participation in the project. Given a project of this magnitude, it is suggested that a 10% equity stake is meaningful and should be the benchmark to require for projects of a similar magnitude under the Title XVII program. ORCF and potential investors feel this is a reasonable level and is attainable for any credible project in the capital markets.

Credit Assessment and Ratings

ORCF has no constructive comments for this section.

Eligible Lenders

The proposed DOE eligibility requirements are fair and reasonable for the ORCF project lenders.

Federal Credit Reform Act

ORCF has no constructive comments for this section.

On behalf of Baard Energy and advisors, we wish to compliment the DOE on their handling of this part of a very complicated process. We are greatly encouraged by the practical adjustments being considered thus far. If we can answer any follow-up questions in this matter, please feel free to contact us at your convenience.

Sincerely,

*Stephan M. Dopuch*

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Vice President  
Baard Energy, L.L.C.

cc John A. Baardson  
Chief Executive Officer  
Baard Energy, L.L.C.